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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,871	06/26/2003	Yoshiaki Kato	1018.1174101	5276

28075 7590 11/30/2004

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EXAMINER	
LEON, EDWIN A	

ART UNIT	PAPER NUMBER
2833	

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/606,871	KATO ET AL.	
	Examiner	Art Unit	
	Edwin A. León	2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 October 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) *16-19* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claims 16-19 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on October 08, 2004.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Obata et al. (U.S. Patent No. 5,145,407). With regard to Claim 1, Obata et al. discloses a fastening device (30) for temporarily fastening an electronic component (70) to a circuit board (Column 4, Lines 10-14), wherein the circuit board (Column 4, Lines 10-14) has a connecting hole (Column 4, Lines 10-14), the fastening device (30) comprising: a base (40); and at least two elastic plates (52, 54) formed integrally with the base (40) and received in the connecting hole (Column 4, Lines 10-14), the elastic plates (52, 54) each

including a first portion (top of 52, 54 which is connected to 40), which is arranged outside a wall (Column 4, Lines 10-14) defining the connecting hole (Column 4, Lines 10-14) when the at least two elastic plates (52, 54) are received in the connecting hole (Column 4, Lines 10-14), and a second portion (52a, 54a), which extends diagonally relative to a plane of the circuit board (Column 4, Lines 10-14) when the at least two elastic plates (52, 54) are received in the connecting hole (Column 4, Lines 10-14), the second portion (52a, 54a) having a section (corner connecting 52, 54 and 52a, 54a) pressed against the wall (Column 4, Lines 10-14) of the connecting hole (Column 4, Lines 10-14) by the elastic force of the at least two elastic plates (52, 54). See Figs. 5 and 9.

With regard to Claim 6, Obata et al. discloses a electronic component (70) connected to a circuit board (Column 4, Lines 10-14), wherein the circuit board (Column 4, Lines 10-14) has a connecting hole (Column 4, Lines 10-14), the electronic component (70) comprising: a fastening portion (between 24) for contacting a plane of the circuit board (Column 4, Lines 10-14); and a fastening device (30) arranged in the fastening portion (between 24), the fastening device (30) including: a base (40); and at least two elastic plates (52, 54) formed integrally with the base (40) and received in the connecting hole (Column 4, Lines 10-14), the elastic plates (52, 54) each including a first portion (top of 52, 54 which is connected to 40), which is arranged outside a wall (Column 4, Lines 10-14) defining the connecting hole (Column 4, Lines 10-14) when the at least two elastic plates (52, 54) are received in the connecting hole (Column 4, Lines 10-14), and a second portion (52a, 54a), which extends diagonally relative to the plane

of the circuit board (Column 4, Lines 10-14) when the at least two elastic plates (52, 54) are received in the connecting hole (Column 4, Lines 10-14), the second portion (52a, 54a) having a section (corner connecting 52, 54 and 52a, 54a) pressed against the wall (Column 4, Lines 10-14) of the connecting hole (Column 4, Lines 10-14) by the elastic force of the at least two elastic plates (52, 54). See Figs. 5 and 9.

With regard to Claims 2 and 7, Obata et al. discloses the first portion (top of 52, 54 which is connected to 40) including a leg (52, 54) defined at a distal portion of the associated elastic plate (52, 54), the leg (52, 54) becoming narrower toward its end (56, 58, Fig. 1). See Figs. 5 and 9.

With regard to Claims 3-4 and 8-9, Obata et al. discloses the at least two elastic plates (52, 54) being made of metal and intersecting each other and the at least two elastic plates (52, 54) intersect each other at the center of the fastening device (30). See Figs. 5 and 9.

With regard to Claims 5 and 10, Obata et al. discloses that when the at least two elastic plates (52, 54) are free from deformation, the distance between distal ends (56, 58) of the elastic plates (52, 54) is smaller than the diameter of the connecting hole (Column 4, Lines 10-14). See Figs. 5 and 9.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Obata et al. (U.S. Patent No. 5,145,407) in view of Hashiguchi et al. (U.S. Patent No. 5,340,321). Obata et al. discloses the claimed invention as shown above except for the use of solder for securely fastening the temporarily fastened electronic device.

Hashiguchi et al. discloses a similar connector (Fig. 1) using solder (Column 5, Lines 28-41 and Lines 55-59) for securely fastening a fastened electronic device (1, 2). See Figs. 1-3.

Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the structure of Obata et al. by using solder as taught in Hashiguchi et al. in order to fix the connector to the circuit board more effectively.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Spangler (U.S. Patent No. 5,632,649), McHugh et al. (U.S. Patent No. 5,971,803), Beck, Jr. (U.S. Patent No. 5,827,089), and Yip et al. (U.S. Patent No. 5,468,154) disclose components having fastening devices with two elastic plates.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edwin A. León whose telephone number is (571) 272-2008. The examiner can normally be reached on Monday - Friday 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on 571-272-2800, extension 33. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gary Paumen
Primary Examiner

Edwin A. Leon
AU 2833

EAL
November 23, 2004